

### AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated hereafter. [Use ~~strikethrough~~ for deleted matter (or double square brackets "[[]]" if the strikethrough is not easily perceivable, *i.e.*, "4" or a punctuation mark) and underlined for added matter.]

#### Claims:

1.- 45. (Canceled).

46. (Currently amended) A ~~The~~ process for the preparation of urethane resins comprising the steps of:

(1) reacting a compound (compound(ab)) having at least one active hydrogen being reactive with an isocyanate group in one molecule and having 1 to 10 silicon atoms directly bonded to an ~~a hydrolyzable group selected from alkoxy and acetoxy groups, group~~ with a compound selected from the group consisting of: a compound(l) obtained by reacting a compound(j) having at least two isocyanate groups with a compound(k) having one to two active hydrogens being reactive with an isocyanate group, a monoisocyanate compound (compound(m)), and a compound(i) selected from the group consisting of an  $\alpha$ ,  $\beta$ -unsaturated carbonyl compound and an  $\alpha$ ,  $\beta$ -unsaturated nitrile compound, in order to produce a product(N) having less than two and greater than no active hydrogens being reactive with an isocyanate group in one molecule;

(2) reacting said product(N), with a ~~compound selected from the group consisting of~~ said compound(j) and a compound(bb) having at least 1.1 isocyanate groups in one molecule, in order to obtain a silicon compound (product(O)) having less than two and greater than no isocyanate groups and having a hydrolysable ~~group selected from alkoxy and acetoxy groups~~ group directly bonded to at least one silicon atom, wherein said compound (j) has at least two isocyanate groups ~~said compound(bb) is obtained by reacting said compound(j) with a said compound(k);~~

(3) reacting said product(O), with a ~~compound or product selected from the group~~ consisting of: a polyol compound (compound(c)), ~~a polythiol compound (compound(c-1)), a compound(cd) having at least one selected from the group consisting of a primary and secondary~~

~~amino-group, a product(C) having an average molecular weight of 100-25000 and having at least 0.2 terminal secondary amino groups in one molecule, and a product(L) being a polymer, wherein said product(C) is obtained by reacting a compound(e) having an organic group(II) selected from the group consisting of amino and acryloyl groups and having an average molecular weight of 100-25000, with a compound(f) being capable of reacting with said organic group(II) to form a secondary amine compound, wherein said product (L) is obtained by polymerizing at least one selected from the group consisting of: a (meta)acryloyl group-containing monomer, a hydroxy group-containing (meta)acrylate, and a silicon compound (compound(y)), said compound(y) having a hydrolyzable group which is selected from the group consisting of an alkoxy and acetoxy group directly bonded to 1 to 10 silicon atoms and having a (meta)acryloyl group, in the presence of a compound selected from the group consisting of: said compound(e), said compound(e-1) and said product(C).~~

47. (Currently amended) The process for the preparation of urethane resins according to claim 46, wherein said compound(ab) has further includes at least one a group selected from the group consisting of primary amino, secondary amino, ~~mercapto~~ and hydroxy groups, ~~and wherein said compound(k) is selected from the group consisting of monoalcohol, monoprimary amine, monosecondary amine and monothiol compound.~~

48. (Currently amended) A The process for the preparation of urethane resins comprising the steps of:

(1) reacting a compound(eb) with a compound(fb), or reacting a compound obtained by reacting a compound (eb) with a compound (fb), with a compound (i) or after reacting said compound(eb) with said compound(fb), further reacting with a compound selected from the group consisting of a compound(l), compound(m) and compound(i), in order to obtain a silicon compound (product(R)) having an alkoxy a hydrolyzable group directly bonded to at least one silicon atom and having less than two and greater than no secondary amino groups, wherein, said compound(eb) is a silicon compound having at least one acryloyl group (organic group(VIII) ) and having at least one hydrolyzable group selected from the group consisting of an alkoxy and acetoxy groups group bonded to at least one silicon atom, wherein, said compound(fb) is capable

of reacting with said organic group(VIII) to form a secondary amino compound, ~~wherein, said compound(l) has less than two isocyanate groups and is obtained by reacting a compound(j) having at least two isocyanate groups with a compound(k) having one to two active hydrogens being reactive with an isocyanate group, wherein, said compound(m) is a monoisocyanate compound, and wherein, said compound(i) is selected from the group consisting of an  $\alpha$ ,  $\beta$ -unsaturated carbonyl compound and an  $\alpha$ ,  $\beta$ -unsaturated nitrile compound;~~

(2) reacting said product(R), with said compound(j) ~~or a compound(bb) having at least 1.1 isocyanate groups in one molecule and being obtained by reacting said compound(j) with said compound(k), in order to produce a silicon compound (product(S)) having at least one alkoxy hydrolyzable group directly bonded to at least one silicon atom and having less than two and greater than no isocyanate groups;~~

(3) reacting said product(S), with ~~at least one selected from the group consisting of: a polyol compound (compound(c)), a polythiol compound(compound(c-1)), a compound(cb), a product(C), and a product(L), wherein, said compound(cb) has at least one primary amino or secondary amino group in one molecule, wherein, said product(C) has an average molecular weight of 100 to 25000, has at least 0.2 terminal secondary amino groups and is obtained by reacting a compound(e) having a organic group(II) selected from the group consisting of amino and acryloyl groups and having an average molecular weight of 100-25000, with a compound(f) being capable of reacting with said organic group(II) to form a secondary amine compound, and wherein, said product(L) is produced by polymerizing at least one selected from the group consisting of: a (meta)acryloyl group containing monomer, a hydroxy group containing (meta)acrylate, and a silicon compound (compound(y)) having a hydrolysable group selected from alkoxy and acetoxy directly bonded to 1 to 10 silicon atoms and having a (meta)acryloyl group, in the presence of a compound selected from the group consisting of said compound(e), said compound(c-1) and said product(C).~~

49. (Currently amended) The process for the preparation of the urethane resins according to claim 48, wherein said compound(cb) is a compound having at least one acryloyl group as said organic group(VIII); the said compound(fb) is a compound having at least one selected from the group consisting of a primary amino and secondary amino group.

50. (Currently amended) A process for the preparation of urethane resins comprising the steps of:

(1) reacting a compound(ib), with ~~a compound selected from the group consisting of a compound(j) and compound(bb)~~, in order to produce a product(V) having less than two and greater than no isocyanate groups and having at least one hydrolysable group directly bonded to a silicon atom, wherein, said compound(ib) has ~~a hydrolysable group selected from the group consisting of an~~ alkoxy ~~and acetoxy groups group~~ directly bonded to at least one silicon atom and has one group(XI) ~~selected from the group consisting of primary amino and secondary amino groups group~~, wherein, said compound(j) has at least two isocyanate groups, ~~wherein, said compound(bb) has at least 1.1 isocyanate groups and is obtained by reacting said compound (j) with a compound(k) having one to two active hydrogens being reactive with an isocyanate group in one molecule;~~

(2) reacting said product(V), with ~~a compound selected from a group consisting of: a compound(c), a compound(e-1), a compound(eb), a product(C) and product(L);~~ wherein, said compound(c) is a polyol compound, ~~wherein, said compound(e-1) is a polythiol compound, wherein, said compound(eb) has at least one selected from the group consisting of primary amino and secondary amino groups in one molecule, wherein, said product(C) has an average molecular weight of 100 to 25000, has at least 0.2 terminal secondary amino groups in one molecule and is obtained by reacting a compound(e) having an organic group(II) selected from the group consisting of amino and acryloxy groups and having an average molecular weight of 100-25000, with a compound(f) being capable of reacting with said organic group(II) to form a secondary amine compound, and~~  
wherein, said product(L) is a polymer, is obtained by polymerizing at least one selected form the group consisting of: ~~a (meta)acryloyl group-containing monomer, a hydroxy group-containing (meta)acrylate, and a silicon compound (compound(y)) having at least a (meta)acryloyl group and having a hydrolysable group selected from the group consisting of alkoxy and acetoxy groups directly bonded to 1 to 10 silicon atoms, in the presence of a compound selected from the group consisting of said compound(c), said compound(e-1) and said product(C).~~

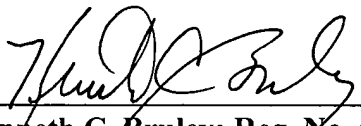


Serial No.: 10/085,213  
Art Unit: 1711

**CONCLUSION**

Applicants respectfully request favorable reconsideration and allowance of the present application and all pending claims. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

  
\_\_\_\_\_  
Kenneth C. Bruley; Reg. No. 51,504

**THOMAS, KAYDEN,  
HORSTEMEYER & RISLEY, L.L.P.**  
Suite 1750  
100 Galleria Parkway N.W.  
Atlanta, Georgia 30339  
(770) 933-9500